

Dimensions of the type (taken in flesh) :—

Head and body 195 mm.; tail 126; hind foot 29; ear 16.

Skull: condylo-basal length 41·5; basilar length 37·2; greatest breadth 25; nasals 11·2 × 5·6; interorbital constriction 4·8; palatal foramina 7; length of upper molar series (crowns) 9·6, (alveoli) 10·1.

External dimensions of Mr. Woosnam's specimen (measured in flesh) :—

Head and body 174 mm.; tail 136; hind foot 33; ear 16.

*Hab.* Armenia and N.W. Persia, on plateau. Type from Van, 5000'.

*Type.* Adult male. B.M. no. 97. 6. 4. 10. Original number 17. Collected 23rd December, 1896, and presented by Major W. H. Williams, R.A.

I can find no evidence that the peculiar rounded character of the molar spaces, as contrasted with their normal angular condition in the type of *persicus* and the Caspian Sea specimen no. 110, is due either to sex, age, or individual variation, and it therefore seems advisable to give a special name to the specimens that show it in spite of their resemblance to the lowland examples in other respects.

#### 14. *Microtus* sp.

♂. 121. Elburz Mts., near Demavend. 4000'.

A small species of the *M. arvalis* group.

#### 15. *Cervus elaphus*, L.

Young ♀. 122. Elburz Mts., near Demavend. 5000'.

XXX.—*A Subdivision of the Old Genus Nesokia, with Descriptions of Three new Members of the Group, and of a Mus from the Andamans.* By OLDFIELD THOMAS.

THE genus *Nesokia* contains three such very distinct and natural groups that in accordance with modern ideas they should be recognized as distinct genera. Their respective characters have already been described by Anderson, Blandford, and myself, but the most tangible may be briefly recapitulated as follows :—

I. NESOKIA, Gray, Ann. & Mag. N. H. x. p. 264 (1842).

Type. *Arvicola indica* \*, Gray & Hardwicke. (*Nesokia Hardwickei* auctorum.)

Skull short and broad. Palatal foramina short. Molars laminate, least *Mus*-like.

Mammæ 2—2=8.

II. GUNOMYS †, gen. nov.

Type. *Arvicola bengalensis*, Gray & Hardwicke. (*Nesokia bengalensis* auct.)

Skull broad. Palatal foramina long.

Mammæ irregular, 14—18 in number.

III. BANDICOTA, Gray, Ann. & Mag. N. H. (4) xii. p. 418 (1873).

Type. "*Bandicota gigantea*," i. e. *B. bandicota*, Bechst.

Skull comparatively long and narrow. Palatal foramina long. Molars most *Mus*-like.

Mammæ 3—3=12.

These three genera are specialized in the order given, *Nesokia* being the most extreme and the farthest from *Mus*, both in skull, tooth-structure, and external characters, and *Bandicota* the nearest, while *Gunomys* is intermediate between the other two.

*Nesokia suilla*, sp. n.

*Nesokia Bacheri*, Nehring, Anderson & de Winton, Zool. Egypt, Mamm. p. 286, pl. L. (1902).

Closely allied to *N. Bailwardi* ‡. Distinguished from *N. Bacheri* § by smaller size and smaller bulk.

Colour and other external characters as in *N. Bailwardi*.

Skull, as compared with that of *N. Bailwardi*, averaging about the same size, but with various differences in detail. Zygomata more boldly expanded and forming a strongly convex shoulder opposite their anterior root, those of *N. Bailwardi* evenly broadening outwards to their posterior part.

\* Bechstein's *Mus indicus* being now removed, as a *Bandicota*, from the genus *Nesokia*, the specific term given by Gray and Hardwicke again becomes tenable for the animal usually known as *Nesokia Hardwickei*. The same specimen (B.M. no. 99 a) is the type of both names.

† γούνος, fruitful, prolific.

‡ *Suprà*, p. 199.

§ Dr. Nehring (SB. Ges. nat. Fr. Berl. 1901, p. 219) states that the type of Wagner's "*Merionus myosuros*," which is a *Nesokia*, is of the same size as *N. Bacheri*. It would therefore be larger than either *N. Bailwardi* or *N. suilla*.

Nasals decidedly longer, broadened and projected forward anteriorly, then abruptly narrowed posteriorly in their middle third, and running backwards to a point, their edges, behind the anterior third, very faintly concave. Supraorbital ridges, even in the oldest specimens, not so thick as in *N. Bailwardi*. Interparietal smaller. Bullæ as in *N. Bailwardi*, conspicuously smaller than in *N. Bacheri*. Molars larger than in *N. Bailwardi*, the crown measurement of an immature specimen 7.6 mm., as against 6.5 in that animal (9.0 in *N. Bacheri*).

Dimensions of the type (measured in skin):—

Head and body 185 mm.; tail 113; hind foot 32; ear 16.

Skull: condylo-basal length 44.5; basilar length 39; zygomatic breadth 27; nasals, length 15, anterior breadth 5, middle breadth 3.6; interorbital breadth 6.1; interparietal 3.2 × 6; palatilar length 24.5; diastema 15.5; palatal foramina 6.2; length of upper molar series (crowns) 7.8, (alveoli) 8.8.

*Hab.* Eastern Egypt. Type from Shaluf, Suez.

*Type.* Old male. B.M. no. 4.8.2.29. Original number 59. From the collection of the late Dr. John Anderson; presented by Mrs. Anderson.

Several examples of the Egyptian *Nesokia*, all agreeing in the above-mentioned characters, have now been received by the Museum. Besides Dr. Anderson's original series there are three, purchased alive in Cairo by the Hon. N. C. Rothschild, and one, said to be from the Fayoum, presented by Capt. S. S. Flower.

#### *Gunomys varius*, sp. n.

The Malay representative of *G. bengalensis*.

Size decidedly larger than in *G. bengalensis*. Fur very coarse and harsh, though not to be called spiny; freely mixed with longer piles attaining 3–4 cm. in length. General colour above coarsely mixed black and cream-buff, without the brown tints of *G. bengalensis*. Individually the ordinary hairs are slaty at base, black at tip, with a broad cream-buff subterminal band; the longer piles black, a few of them white. Under surface dull grizzled greyish, the slaty-grey bases of the hairs more conspicuous than their dull whitish tips. Head and dorsal line particularly heavily pencilled with black. Ears brown. Hands and feet brown on the middle of the metapodials, whitish laterally and on the digits. Tail well clothed with coarse hairs 2–3 mm. in length; dark brown above, rather paler below.

Skull similar in general characters to that of *G. bengalensis*, but larger and heavier throughout.

Dimensions of the type (measured in the flesh):—

Head and body 266 mm.; tail 197; hind foot 40; ear 19.

Skull: condylo-basal length 48; basilar length 43; greatest breadth 26·7; nasals  $16 \times 5\cdot2$ ; interorbital breadth 6·5; frontal height\* 15·5; palatilar length 25·5; diastema 16·3; palatal foramina  $10 \times 2\cdot6$ ; length of upper molar series (crowns) 7·3, (alveoli) 8·5.

*Hab.* Georgetown, Pinang, Malay Peninsula.

*Type.* Adult male. B.M. no. 98. 8. 3. 3. Collected 8th April, 1898, and presented by Capt. S. S. Flower.

This is the "*Mus setifer*, Horsfield," of Dr. Cantor's "List of Malayan Mammals" †, a specimen collected by him in Pinang having been received with the Indian Museum collections in 1879.

*G. varius* is distinguishable from *G. bengalensis* by its coarse fur, variegated colour, and comparatively large size.

#### *Gunomys varillus*, sp. n.

Like *G. varius*, but very much smaller.

Size very small, scarcely equalling the smallest S. Indian species of the genus. Fur coarse; longer piles almost confined to the posterior back. General colour above about as in *G. varius*, or rather more buffy, but the mixture is finer, not so coarsely variegated. Under surface dull greyish, the hairs slaty at base, dull creamy terminally. Hands and feet brown. Tail more finely scaled than in *G. varius*, uniformly brown.

Skull very much smaller in all dimensions than that of *G. varius*, but essentially similar in form. Nasals short and narrow. Supraorbital ridges less heavily developed. Anterior zygomatic plate well projected forwards, much more so than in the equally small S. Indian *G. kok*. Palatal foramina of equal breadth for their anterior two-thirds, narrowed in their posterior third.

Dimensions of the type (measured in skin):—

Head and body 184 mm.; tail 137; hind foot 36·5; ear 16.

Skull: condylo-basal length 40·5; basilar length 35; greatest breadth 23; nasals  $13 \times 4\cdot3$ ; interorbital breadth 5·7; frontal height 12·5; palatilar length 21; diastema 13; palatal foramina  $8 \times 2\cdot4$ ; length of upper molar series (crowns) 7, (alveoli) 8.

\* From the supraorbital ridge to the alveolus between  $m^1$  and  $m^2$ .

† J. A. S. B. xv. p. 254 (1846).

*Hab.* Georgetown, Pinang.

*Type.* Adult male. B.M. no. 98. 8. 3. 5. Collected and presented by Capt. S. S. Flower. Another specimen obtained by Dr. Cantor.

Both Dr. Cantor in 1845 and Capt. Flower half a century later obtained in the little island of Pinang examples representing two species of this genus, a large and a small. The former marked both his specimens as "*Mus setifer*," evidently taking them for the same species, but there cannot be the slightest doubt that they are quite distinct animals, their difference in size being far too great to be due to individual variation.

*Mus Rogersi*, sp. n.

A spinous-haired species with  $1-3=8$  mammæ.

Size of *Mus norvegicus*. Fur coarse, profusely mixed with spines, which on the back are about 16 mm. in length by 0.4 mm. in breadth. General colour coarsely grizzled ochraceous brown, the bases of both hairs and spines pale grey, the tips of the spines black and of the ordinary hairs ochraceous. The few long bristle-hairs are wholly black. Sides greyer. Under surface not sharply defined, pale buffy greyish, the hairs pale slaty at base, dull cream-buff terminally. Ears finely haired, dark grey. Limbs dark grey externally, light grey like belly along their inner aspect. Hands and feet white above, the metapodials slightly darker; fifth hind toe, without claw, reaching to the end of the first phalanx of the fourth. Tail rather shorter than head and body, almost naked; rings of scales about 10 to the centimetre; dark brown above, whitish flesh-colour below. Mammæ  $1-3=8$ .

Skull strongly built, with well-marked supraorbital beads, which are continued across the parietals to the corners of the interparietals. Muzzle rather narrow, parallel-sided. Palatal foramina not reaching back to the level of the molars. Mesopterygoid fossa broadly rounded in front, its anterior limb slightly anterior to the front end of the parapterygoid fossæ on each side of it. Bullæ of medium size. Molars small in proportion to the general size.

Dimensions of the type (measured on the spirit-specimen before skinning):—

Head and body 195 mm.; tail 188; hind foot (s. u.) 41; ear 28.

Skull: greatest length 48.5; basilar length 40; zygomatic breadth 22.5; nasals  $18 \times 5$ ; interorbital breadth 7.2; greatest separation of parietal ridges 16; palatilar length

23·3; diastema 14·2; palatal foramina 9·2; length of upper molar series 7·8.

*Hab.* W. Coast of South Andaman Island, north of Iké Bay.

*Type.* Adult female. B.M. no. 6. 4. 13. 2. Collected February 1904, and presented by C. G. Rogers, Esq.

In spite of the number of rats recently described by Mr. G. S. Miller\* from the Andaman group, this fine species does not appear to have been previously obtained. Its very unusual mammary formula, 1—3=8, is alone shared, in the whole of the Muridæ, by *Mus bagobus*, Mearns, from the Philippines, and *Mus pulliventer*, Miller, from the Nicobars, of which latter it may be the Andaman representative, but from which it differs by its markedly larger size and distinctly bicolor tail.

XXXI.—On some British Polyzoa. By Canon A. M. NORMAN, M.A., D.C.L., LL.D., F.R.S., F.L.S.

[Plate IX.]

*Micropora impressa* (Moll). (Pl. IX. figs. 1–3.)

1803. *Eschara impressa*, Moll, *Eschara*, p. 51, pl. ii. fig. 9.

1841. *Eschara andegavensis*, Michelin, *Icon. Zoophyt.* p. 329 (nec auct. plur.).

1848. *Cellepora gracilis*, Reuss, *Foss. Polyp. des Wiener Tertiärbeckens*, p. 93, pl. xi. fig. 12 (nec Von Münster).

1854. *Membranipora calpensis*, Busk, *Brit. Mus. Cat.* p. 60, pl. civ. figs. 5, 6.

1867. *Membranipora bifoveolata*, Heller, *Bryozoen des adriatischen Meeres*, p. 19, pl. ii. fig. 1.

1871. *Membranipora calpensis*, Manzoni, "Suppl. alla Fauna Bryoz. Medit.," *Sitz. k. Akad. d. Wissensch.* vol. lxi. p. 3, pl. i. figs. 2, 3.

1879. *Micropora impressa*, Waters, *Ann. & Mag. Nat. Hist.* ser. 5, vol. iii. p. 123.

I have recently found among material put by for further examination a little box which contained three small pieces of the above Polyzoan, and labelled Guernsey. I cannot recall to mind whether I procured these specimens myself at Guernsey in 1865 or whether they were given to me.

Other specimens are in my collection from Naples, where I found it in 1887 to be abundant, and from the Adriatic, given to me by my late friend Professor Heller under his name "*Membranipora bifoveolata*."

\* Pr. U.S. Nat. Mus. xlv. p. 753 (synopsis of species) (1902).